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LONG-TOED STINTS, SANDERLING AND OTHER WADERS AT LAKE VIOLET, CENTRAL W.A. IN MIDSUMMER 1977-78.

By PETER J. CURRY, Kelmseott

INTRODUCTION

Lake Violet is a small ephemeral brackish lakebed under 5 km² in area which is situated about 6 km SE of Wiluna, at the northern end of Lake Way. Receiving a mean annual rainfall of about 8 in., the lakebed is dry for most of the year and since nearby goldmining operations ceased, it generally bears surface water only very transiently. The shoreline of the lake is thinly vegetated with various halophytes, mainly dwarf samphires and glassworts (*Chenopodiaceae*) and is backed by low dunes and shrublands. After a rainless spring season, on December 22-23, 1977, thunderstorms brought widespread rainfall to the region, with 33 mm being recorded at Wiluna Emu Station some 12 km NE of Lake Violet. When I visited the locality on December 31, the lakebed had filled to a depth of a few inches, though already the shoreline was receding due to evaporation. Between this date and January 11, 1978, I visited Lake Violet on six dates. Among many migratory or nomadic water birds present during the period, the appearance of the following 10 species of northern waders was particularly interesting.

THE SPECIES

Sanderling, *Calidris alba*

One in company with about 100 Red-capped Dotterels, *Charadrius ruficapillus* and two Red-necked Stints, *Calidris ruficollis* at the western end of the lake, on December 31.

A small, dumpy *Calidris*, obviously a shade larger than accompanying stints and plovers, showing a white head, dark earpal patch, pure white underparts and pale grey back with an obscurely scaly pattern of paler feather edgings. The bill appeared straight and black, longer than those of the stints. As the flock moved out to feed, the Sanderling ran very fast along the sands before taking flight to show a broad, white wingstripe on a dark wing. As it flew out to the east, loud 'pwit-pwit' calls were given. It was not seen subsequently.

Red-necked Stint, *Calidris ruficollis*

Two present on December 31 were not seen subsequently.

Long-toed Stint, *Calidris subminuta*

Three stints with conspicuously dark backs were found near dusk on January 2. From their obviously dusky appearance and rather strong flight calls (noted as 'chrt'), I suspected *subminuta* rather than *ruficollis*, though the views I obtained were unsatisfactory. I did not locate any stints subsequently until January 7, though later findings suggested that Long-toed Stints were probably present throughout the period, but avoided detection by remaining concealed amid flooded vegetation. On January 7, I located five Long-toed Stints feeding inconspicuously in shallows around

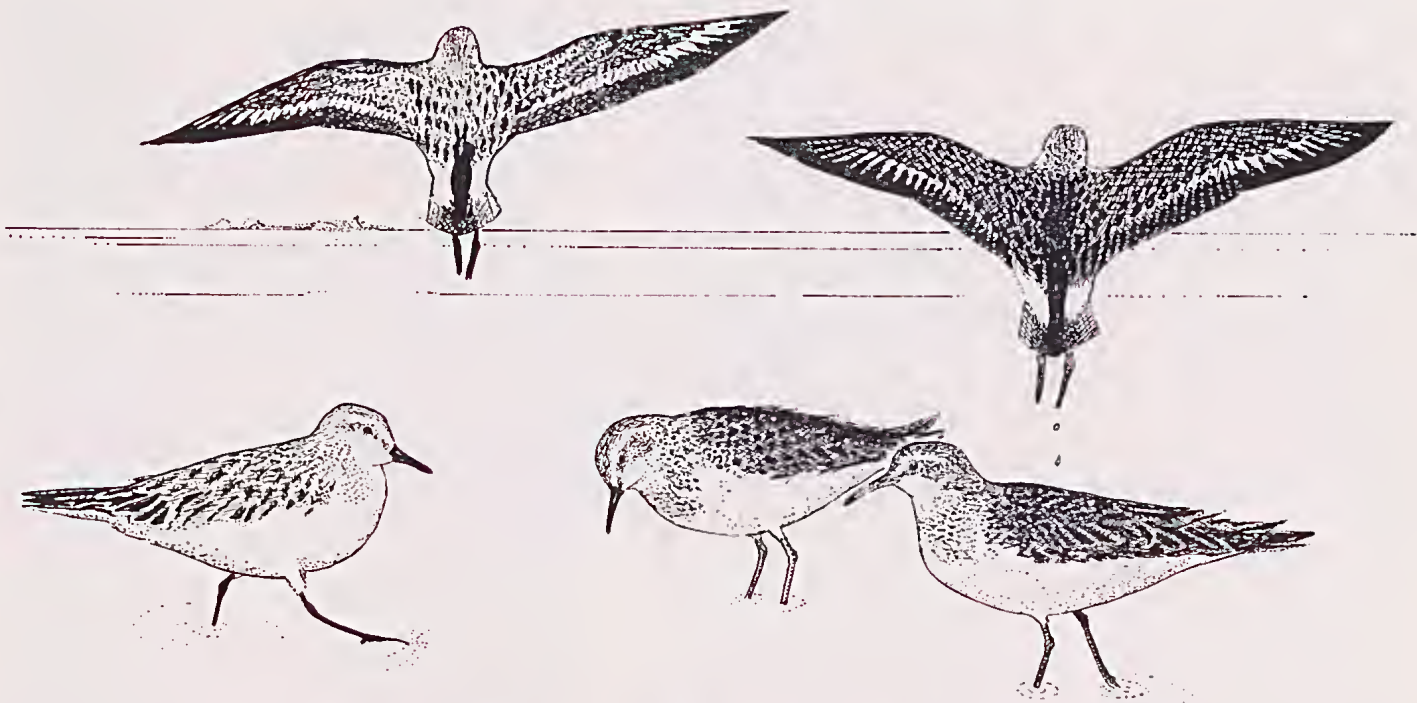


Fig. 1.—Stints at Lake Violet. The left two are Red-necked, *Calidris ruficollis*; the right three are Long-toed, *C. subminuta*, including adult with bi-coloured bill (lower right).

the edge of flooded samphires. On January 8, no less than 10 were present, now wading well away from the vegetated shore-line as the water level continued to drop. On the open water, they were the most wary of the various waders present, and no matter how I tried to stalk them across the lake, they invariably worked themselves around to the far side of the large group of Red-capped Dotterels with which they associated. On January 11, numbers had declined to four, which were associating with Pectoral and Sharp-tailed Sandpipers, *C. melanotos* and *C. acuminata*, far out in the middle of the lakebed. Detailed field notes were made on these stints, from which the following points arose:

1. Size about that of *ruficollis*—though none present for comparison.
2. Shape somewhat different from *ruficollis*, looking fairly attenuated on the ground, but rather short-winged in flight.

3. Horizontal stance, combined with the dusky markings on the sides of the breast, recalled Temminck's Stint, *C. temminckii*, though other plumage features and the rather too steady gait of these birds dictated against that species.

4. The tone of the back feathering was the most conspicuous plumage feature of all the birds. This appeared very dark in the mid-dorsal region (particularly on rear view) and the wing-coverts showed extensive dark grey-brown centres and narrow buff edges. The overall effect was of stints with a back coloration even darker than that of a nearby Pectoral Sandpiper. Since winter (southern summer) *ruficollis* normally show pale greyish-brown backs with narrow mesal (central) streaks, the difference in the field is considerable. One bird, perhaps an adult, showed a panel of wing-coverts broadly edged with bright chestnut, recalling descriptions of similar feathering on Western Sandpipers, *C. maurii*.

5. Head and frontal patterns were distinctive, at long range looking more dusky, lacking the white-faced appearance of *ruficollis*. Dark feathers in the crown extended to the base of the bill, or virtually so. Narrow off-white supercilia did not fork over the eye and were edged lower by brownish lores and ear-coverts. Napes grey-brown. Smudges of grey-brown on the sides of the upper breast were more extensive than those of *ruficollis* in non-breeding plumages, in some individuals almost forming a breast-band.

6. Remainder of underparts white, though not as clean looking as a nearby Pectoral Sandpiper's belly feathering.

7. Bill patterns varied individually. Four of the birds seen well showed bills estimated to be around the length typical of *ruficollis*, though appearing minutely downcurved with lesser expansions at base and tip than are typical of that species. Another individual has an arresting bill pattern, quite unlike anything I had encountered previously on a small wader. The bill was perceptibly longer than its companions', slender and droop-tipped (again recalling descriptions of *maurii* in N. America), but uniformly blue-grey along its basal 70-80%, the tip being blackish. Wallace (1974) makes reference to the bi-coloured bill of some adult *subminuta* as a unique character amongst the seven species of stints.

8. Leg-length relative to body-length appeared to be similar, or slightly longer, than for *ruficollis*. Tarsi not habitually flexed to any extent. A crouched gait is said to be a character of the closely allied Least Sandpiper, *C. minutilla* (Wallace, loc. cit.). Leg colour of each of the Long-toed Stints seen well at Lake Violet appeared between greenish through dark olive to greyish. None seemed notably yellow-toned, and in the prevailing viewing conditions of bright sunshine above glassy water, legs appeared quite dark at distances from which the legs of a Pectoral Sandpiper were obviously yellow. At no time was a good view obtained of the toes on grounded birds, since they were always immersed when standing. At take-off, legs and feet looked longish for a stint.

9. The flight pattern was striking, the upperparts looking very dark, and a narrow whitish wing-bar contrasted against dark wings on each bird. Although much less extensive than the normal extent of white wing-bar (or stripe) on *ruficollis*, it was quite easy to see on a good view. Eckert (1962) noted an 'absence of a white wing bar' on breeding-plumaged *subminuta* in South Australia; likewise Condon & McGill (1970) state there is no wing bar in flight. Wallace, however, describes 'a thin, diffuse, whitish wing-bar, made obvious only by dark plumage'. It seems likely that the extent of the wing-bar varies, but is always narrower than that shown by *ruficollis*. The tail pattern shown by birds at Lake Violet consisted of white sides to black rumps and dark tail-feathers.

10. Flight fast and erratic, looking short-winged and dumpy-bodied.

11. Alarm notes on take-off were noted as 'chee-chee' and contact notes in flight rendered 'ehrrt', quite distinct from the softer calls (such as 'pip-swip') of *ruficollis*.

Pectoral Sandpiper, *C. melanotos*

One, undergoing conspicuous wing-moult, flushed from flooded samphires on January 2, called 'kreet-kreet' as it flew off with a Wood Sandpiper, *Tringa glareola*. It was still present on January 11. Its main differences from Sharp-tailed Sandpiper were, when compared directly: bright yellow legs; slightly more slender appearance; a densely flecked brown breast ending in a sharp demarcation; unmarked white belly; longer bill with yellow at base; rather darker, warmer-toned upperparts; different calls.

Sharp-tailed Sandpiper, *C. acuminata*

One January 7-11.

Wood Sandpiper, *Tringa glareola*

One, January 2-3.

Greenshank, *Tringa nebularia*

Six, December 31; eight January 2-5.

Oriental Dotterel, *Charadrius veredus*

One, January 7; three on 8th and one, January 11.

Lesser Golden Plover, *Pluvialis dominica*

One, January 2-11.

Oriental Pratincole, *Glareola maldivarum*

One, January 7; two on 8th.

DISCUSSION

The species composition and their relative lengths of stay at Lake Violet were somewhat unexpected. Previously in 1977, the only northern waders I had encountered around Wiluna were Common Sandpipers, *Tringa hypoleucos*. None appeared at Lake Violet in midsummer, nor did I find any Curlew Sandpipers, *C. ferruginea*. Only one Sharp-tailed Sandpiper appeared, and two Red-necked Stints were seen on one date only. Thus the northern waders most commonly encountered inland in southern Australia were poorly represented, with the exception of Greenshanks. A gathering of up to 10 Long-toed Stints may be exceptional in Western Australia, where the species has been regarded as rare, or presumably so (Serventy & Whittell, 1976), with a relatively high incidence of inland occurrences being reflected from the Murchison to the eastern states. Mid to late summer records are the rule, though the largest gathering yet recorded of the species in Australia occurred in April, 12 at Langhorne's Creek, South Australia (Eckert, 1962). There must be a strong

likelihood that most go unnoticed, finding their feeding requirements at ephemeral inland waters following summer rains.

The occurrence of a Sanderling at Lake Violet is evidently the first to be reported from the Australian interior, the only other inland record that I know of being one (specimen) from Mildura, Victoria (Wheeler, 1967). These occurrences are not altogether unexpected, since theoretical migration routes to the southern beaches traverse the continent. Elsewhere, migrating Sanderlings have been found at various sites in the interior of East Africa (Moreau, 1972) and West Africa south of the Sahara (Sayer, pers. comm.)

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A RUFF, *PHILOMACHUS PUGNAX*, AT BIBRA LAKE, JUNE 1978.

By PETER J. CURRY, Kelmscott.

On June 18, 1978, I was watching an assemblage of wading birds which had been attracted to the recently replenished shallows of Bibra Lake. Amongst many Pied Stilts *Himantopus himantopus*, Banded Stilts *Cladorhynchus leucocephalus* and Red-necked Avocets *Recurvirostra novaehollandiae* were a group of five Black-tailed Godwits *Limosa limosa* and, on the south-western shoreline, a single much smaller wader. With 10x binoculars, at about 300 m range, the wader appeared to be basically bright orange-buff in colour, with very obvious long, bright yellow legs. I approached gradually and was then able to watch the bird for over an hour as it foraged both on dry mud and in the water. I was able to identify it as a Ruff, chiefly through past familiarity with the species overseas. Its size suggested that it was a female (Reeve), male Ruffs being considerably larger birds. Aware of the species' evident rarity in W.A., I took notes and sketches of the bird and later informed Dr S. J. J. F. Davies, Regional Organiser of the R.A.O.U. Atlas scheme. Two days later it was still present, though I could not locate it on subsequent visits.

DESCRIPTION

Size, shape and actions:— Considerably smaller than nearby Pied Stilts, estimated to be about the size of a Sharp-tailed Sandpiper, *Calidris acuminata*, but with much longer neck and legs. Head small, held high when walking. Neck long and tapering from the body with distinctive shoulderless, rather bottle-shaped, appearance. Body slim, wings long and tending to 'cloak' the tail. Gait a steady walk, more like a large *Tringa* than a small *Calidris* sandpiper. Fed with deliberate probes and pecks both in the water and on dry land, where it foraged among dead waterside plants, craning its neck and bill upwards to peck for food items above its own height. Flew briefly with slow, stiff wingbeats. No calls heard.

Plumage and soft parts:— Head, neck and upper breast basically bright buff coloured. Fine grey-brown streaking on crown and small dark mark through inconspicuous eye. Buffish supercilium. Breast buffish

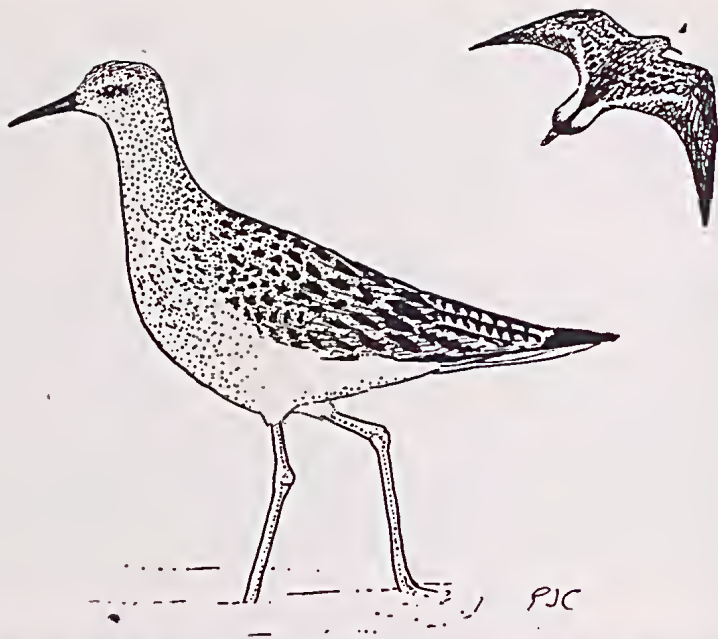


Fig. 1.—Ruff, *Philomachus pugnax*, at Bibra Lake, June 1978. Note slender form, alert stance, long legs, pattern of back feathering and extent of white in flight.

with grey suffusion and irregular small dark markings, shading to white on belly and undertail coverts. Back feathering well-marked orange-buff with large blackish feather centres. Tertiaries conspicuously 'notched' black and yellow, recalling Lesser Golden Plover, *Pluvialis dominica*. In flight, narrow white wing-bar, well-marked from back to mid-wing and probably more conspicuous than on any Sharp-tailed Sandpiper. Rump and tail sides white with a dark central stripe and dark rectrices. Bill fine and dark, about length of head and virtually straight or minutely declined. Legs and feet brilliant yellow, with a faint pink tinge at close range. Length of leg just longer than maximum depth of body, the toes clearly projecting beyond the tail in flight.

DISCUSSION

Ruffs or Reeves are evidently very uncommon throughout Australia. Serventy and Whittell (1976) cited only two known occurrences in W.A., at Hamelin Pool and the Lower King River. Most Australian records have been in summer and I know of no other in mid-winter. This occurrence followed an increased number of reports of northern waders wintering in south-western W.A. in 1978 (S. J. J. F. Davies, pers. comm.).

Whilst male Ruffs in breeding plumage are utterly unlike any other species of wader, females, immatures and non-breeding males are very variable in appearance, size and habitat. Non-breeding birds may be encountered from newly-ploughed fields to seashores in Europe, and from freshwater marshes, lakeshores and paddyfields to dry plains in Africa and Asia. Winter plumaged birds seen during the southern summer tend to be grey-brown and rather featureless, with legs almost any colour though grey, green, yellow, orange or red. The bright, fresh plumage lacking head adornments as shown by the Bibra bird suggested it to be at least a second

summer (i.e. southern winter) or even adult-plumaged Reeve. Confusion in Australia is most likely with Sharp-tailed or Pectoral Sandpipers, *C. melanotos*, from which Ruffs and Reeves are identifiable by a longer-necked stance, longer legs, more elegant gait, more slender bill shape, more extensive white sides to the tail and different calls (though often silent). A very buffy Reeve could be confused with the rarer Buff-breasted Sandpiper, *Tryngites subruficollis*, if the observer was familiar with neither species, though the latter has a quite different shape and actions and a plain uppertail pattern.

AN UNUSUAL METHOD OF SPOIL DISPOSAL DURING BURROW EXCAVATION BY THE TRAPDOOR SPIDER *ANIDIOPS VILLOSUS* (RAINBOW).

By BARBARA YORK MAIN, Zoology Department, University of Western Australia, Nedlands.

Maintenance and deepening of burrows by trapdoor spiders of the family Ctenizidae is a seasonal activity stimulated by heavy rain which soaks into the soil and renders it malleable. In southwestern Australia such activity generally coincides with autumn rains which break the characteristic summer drought. Some species, notably adults of *Anidiops villosus*, occasionally take advantage of the favourable conditions following spasmodic summer thunderstorms to deepen their burrows. Most species deposit the excavated soil in loose piles that form a lunette in front of the burrow entrance (Fig. 1). Individual loads are dumped by the spider

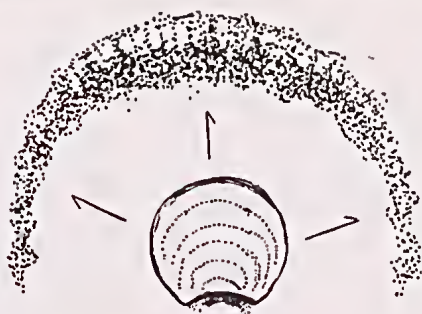


Figure 1.—Lunette arrangement of dumped soil from deepened burrow; this is the typical method of disposal by most aganippine trapdoor spiders.

which ejects the front of the body from under the half-opened door while it retains a 'toe-hold' on the burrow rim. However *Anidiops villosus* deposits spoil in long mounds immediately behind the hinge-line of the door (Fig. 2 and Plate 1). Piles of excavated soil may be up to 16.0 cm long and several centimetres high and wide.

Anidiops villosus like many other aganippine species, attaches individual twigs with silk to the rim of the burrow entrance in a radial or fan-like arrangement (Rainbow, 1914; Main, 1952 and Plate 1). These twig-lines function as sensory lines for the detection of prey moving across the litter (Main, 1957a,b). The twig-lines of *Anidiops* obviously present a mechanical difficulty in flipping or pushing soil out of the entrance. Further, soil dumped on or even near the twig-lines would interfere with the foraging activity of the spider and to carry spoil across the fan of